



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,196	04/02/2004	Sanshiro Takeshita	Q80884	7526
23373	7590	03/11/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			FERGUSON, MARISSA L	
			ART UNIT	PAPER NUMBER
			2854	

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/816,196	Applicant(s) <input checked="" type="checkbox"/> TAKESHITA ET AL.	
	Examiner Marissa L. Ferguson	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-8 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/18/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,3,4 and 6-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Sasai et al. (US Publication 2002/0067940).

Regarding claim 1, Sasai et al. teaches a carriage guide shaft (151,634,635), a guide shaft gear fixed to an end of the carriage guide shaft (elements 461-465 , Figures 26 and 28), a gap adjuster cam (1031,1236) rotatable integrally with the guide shaft gear and formed in a shape to change the platen gap a plurality of platen gap stages, a cam follower (1023) for the gap adjuster cam, a drive motor for driving the guide shaft gear to rotate (Paragraphs 0143,0242 and many references throughout patent), wherein the carriage guide shaft is moved relatively to the platen so that the platen gap is adjusted by driving the drive motor to rotate the gap adjuster cam (Paragraph 0041, 0159,0458), the gap adjuster cam (1031,1236) is configured so as to provide a plurality of stable areas corresponding to the platen gap stages where the platen gap is constant while a rotational phase of the gap adjuster cam varies in a

predetermined range (Paragraphs 0016,0345,0366), a plurality transition areas where the platen gap changes between the stable areas as the rotational phase of the gap adjuster cam varies (Figure 24), wherein a stable area detection sensor (422,722) is provided so as to face to a rotational member, which rotates synchronously with the gap adjuster cam (Paragraph 0358 and Figure 41) and a detection object in correspondence with the stable areas of the platen gap is provided on the rotational member (422,722)

Regarding claim 3, Sasai et al. teaches wherein the detection object detected by the detection sensor (422,722) for the stable areas is formed in correspondence with a central portion in each stable area, other than adjacent portions to the transition areas formed in both ends of said stable area (Figure 25).

Regarding claim 4, Sasai et al. teaches wherein a home position detection sensor is provided so as to face to the rotational member and the rotational member is provided with another detection object for the home position detection sensor at a position where the gap adjuster cam is located in a home position.

Regarding claim 6, Sasai et al. teaches a gap adjuster cam including a restricting mechanism for restricting a rotation thereof (elements 1021 and 1023).

Regarding claim 7, Sasai et al. teaches a recording apparatus comprising the stable area detection device of the platen gap according to Claim 1 (Paragraphs 0024 and many reference throughout patent).

Regarding claim 8, Sasai et al. teaches a liquid ejection apparatus comprising the stable area detection device of the platen gap according to Claim 1 (Paragraphs 0242 and many reference throughout patent).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasai et al. (US Publication 2002/0067940) in view of Kanada (US Publication 2002/0039207).

Sasai et al. teaches the claimed invention including light emitting sensor and a light shielding plate. Kanada teaches an imaging apparatus a white shielding plate (Paragraphs 0056,0084).). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention as taught by Sasai et al. to include a shielding plate as taught by Kanada, since Kanada teaches that it is advantageous to prevent the interference of light and to provide an apparatus capable of provide good quality images.

Allowable Subject Matter

3. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

4. The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 5, the prior art does not teach wherein the position where the gap adjuster can be located in the home position is a boundary portion between the stable area of a maximum platen gap stage and the transition area adjacent to the stable area of the maximum platen gap stage.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa L. Ferguson whose telephone number is (571) 272-2163. The examiner can normally be reached on (M-T) 6:30am-4:00pm and every other(F) 7:30am-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MRT

Marissa L Ferguson
Examiner
Art Unit 2854

Ren Yan
REN YAN
PRIMARY EXAMINER